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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/490,116	01/24/2000	Kristoffer Ptasinski	3660-9	6743

7590

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EXAMINER

DAVIS, TEMICA M

ART UNIT

PAPER NUMBER

2681

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7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/490,116

Applicant(s)
Ptasinski et al.

Examiner
Temica M. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 24, 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, and 8 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6 6) ☐ Other:

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DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because "To be published together with FIG 2" should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by

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raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, **claims 1-5 and 9** recite the broad recitation “digital control signal”, and the claim also recites “(DAC value)” which is the narrower statement of the range/limitation, **claims 1 and 7** recite “consumption” and the claim also recites “(ChargeConsumption, CurrentCount)” which is the narrower statement of the range/limitation, **claim 2** recites “analog control signal” and the claim also recites “(Pwr Ctrl)” which is the narrower statement of the range/limitation, **claim 3** recites “predetermined consumption values” and the claim also recites “(TxCurrent)” which is the narrower statement of the range/limitation, **claim 5** recites “calculate the consumption” and the claim also recites “(ChargeConsumption)” which is the narrower statement of the range/limitation, **claims 3, 5, 6 and 9** recite the limitation “predetermined consumption values” and the claim also recites “(TxCurrent)” which is the narrower statement of the range/limitation, **claim 8** recites the limitation “the device is a mobile telephone” and the claim also recites “such as a TDMA telephone or a W-CDMA telephone” which is the narrower statement of the range/limitation, **claim 9** recites “accumulated charge consumption value” and the claim also recites “(CurrentCount)” which is the narrower statement of the range/limitation.

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For purposes of examination, the examiner will interpret the claim language using the broad limitations.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baranowski et al (Baranowski), U.S. Patent No. 5,613,229.

Regarding claim 1, Baranowski discloses a communication device (103) (col. 2, lines 12-22) comprising a power amplifier (210), a battery (222) for inherently supplying power to the power amplifier, and a controller (220/330), the controller being arranged to control an output power level of the communication device by generating a digital control signal (reads on the regulated voltage) for the power amplifier (col. 3, lines 1-10; figures 2 and 3), characterized by the controller (220/330) being arranged to monitor the digital control signal and in response determine a consumption of electric energy from the battery (222) (col. 7, line 10-col. 8, line 17).

Baranowski, however, fails to disclose wherein the portable communication device is a multi-band device.

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The examiner contends however, that it is well known in the art that cellular phones can operate using multiple frequencies, and the examiner takes official notice as such. Therefore, at the time of invention it would have been obvious to a person of ordinary skill in the art to modify the communication device of Baranowski with multi-band functionality for the purpose of allowing the user of the device more flexibility to use multiple systems which may operate on different frequencies.

Regarding claim 2, Baranowski, as modified, discloses a portable multi-band communication device as in claim 1, further reads on the device comprising a D/A (digital-to-analog) converter inherently operatively connected to the power amplifier, the D/A converter being arranged to receive, at an input thereof, the digital control signal, convert the digital control signal into an analog control signal and submit, at an output of the D/A converter, the analog control signal to the power amplifier (col. 8, line 51-col. 9, line 2).

Regarding claim 8, Baranowski as modified discloses a portable multi-band communication as in claim 1, wherein the device is a mobile telephone (col. 2, lines 18-22).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baranowski as applied to claim 1 above, and further in view of Rosenthal, U.S. Patent No. 5,838,140.

Regarding claim 7, Baranowski, as modified, discloses a portable multi-band communication device as in claim 1.

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Baranowski, however fails to disclose the device further comprising a graphical display wherein a controller is arranged to calculate an estimated remaining battery capacity by subtracting the determined consumption of electric energy from a previous value of remaining battery capacity, and wherein the controller is arranged to visually indicate the calculated estimated remaining battery capacity on the graphical display.

In a similar field of endeavor, Rosenthal discloses a portable telephone with a battery consumption technique.

Rosenthal further discloses a graphical display wherein a controller is arranged to calculate an estimated remaining battery capacity by subtracting the determined consumption of electric energy from a previous value of remaining battery capacity, and wherein the controller is arranged to visually indicate the calculated estimated remaining battery capacity on the graphical display (col. 3, line 59-col. 4, line 3 and col. 4, line 44-col. 5, line 4).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Baranowski with graphical interface taught in Rosenthal for the purpose of indicating to the user how much battery life is remaining in order to give the user enough time to handle the present call appropriately (such as hang up, hurry the present conversation, or begin to apply an external charging power to the depleting battery in order to complete the conversation, etc.).

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Allowable Subject Matter

8. Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Further, the 112 rejections applied to these claims must also be overcome.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, prior art fails to suggest or render obvious a communication device having a memory adapted to store a set of predetermined consumption values associated with different values of a digital control signal.

Regarding claims 4-6, they are indicated allowable based on their dependence from allowable claim 3.

10. Claims 9 and 10 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 10, prior art fails to suggest or render obvious storing a set of predetermined consumption values providing an association between different amounts of electric charge consumption and respective values of a digital control signal.

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Regarding claim 10, it is indicated allowable based on its dependence from allowable claim 9.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Higuchi et al, U.S. patent No. 6,522,361, discloses an electronic apparatus having the function of displaying the battery residual quantity.

Maeda et al, U.S. Patent No. 5,717,312, discloses a charging device providing a stable display of the residual charge in a battery.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Dwayne Bost, can be reached on (703) 305-4778..

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 Customer Service whose telephone number is (703)306-0377.

Any response to this action should be mailed to:

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or faxed to:

(703) 872-9314 (for any communications intended for entry).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

TMD

April 19, 2003


TEMICA M. DAVIS
PATENT EXAMINER